

The Spectroscopic Analysis of Impurities
in High-purity Sulfur

S/032/60/026/012/012/036
B020/B056

electrode had the shape of a truncated cone. The electrode spacing was 3 mm. 5% of NaCl was added to all standards and samples. The effect produced by NaCl on the intensity of the spectral lines of the elements determined may be seen from the data given in Table 1. The method is based upon the use of three standards. As inner standard in the determination of Al, Ni, Co, Cu, and Ag, a closed background was used. Iron is determined on the basis of the "absolute" blackenings of the analytical bands. The analytical bands and the range of the determined concentrations are given in Table 2. The mean square error of the single determination of various elements is 9-18%, in the case of nickel and cobalt at concentrations of below 0.001% 30-35%. In the determination of Cu, Ag, In, Ga, Ni, and Co with previous concentration of the sample, a mixture of spectrally pure silicon dioxide (80%) and NaCl (20%) was used as collector. 12 mg weighed portion of the collector is mixed for 20 minutes in a quartz mortar with 600 mg of the analyzed sample, after which the sulfur is burned. For the purpose of removing the organic substances, the residue is heated for 30 minutes to 500° in the muffle furnace. When concentrating the impurities it was found by spectroscopy that they do not go over into

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the collector quantitatively. The standards were prepared in the same manner as in the preceding case. All impurities, with the exception of Ga, were introduced in form of sulfides, Ga as sulfate. The sulfur used as a basic material contained no Ag, In, Ga, Ni, and Co. Its copper content was determined by means of the successive approximation technique. The analysis was carried out according to a calibration diagram, which had been recorded in the coordinates $[\Delta S; \log C]$. In Table 3, the analytical lines and the ranges of the determination concentration of the elements investigated were enumerated according to the second method. In the second column of the table, also the transmissivity of the various spectral regions is given. The mean square error of a single determination is for Cu 30%, for Ag 11%, indium 12%, Ga 23%, nickel 28%, and Co 24%. The analysis conditions mentioned also permit the determination of lead and tin with an accuracy of $3 \cdot 10^{-5}\%$ and of magnesium with an accuracy of $1 \cdot 10^{-5}\%$. There are 3 tables and 3 Soviet references.

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in High-purity Sulfur

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B020/B056

ASSOCIATION: Leningradskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov
(Leningrad Laboratory of the All-Union Scientific Research Institute of Chemical Reagents)

Card 4/4

ACCESSION NR: AP4041835

S/0054/64/000/002/0130/0132

AUTHOR: Andreyeva, I. Yu., Yefremov, G. V.

TITLE: Certain chemical properties of boron phosphide

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1964, 130-132

TOPIC TAGS: boron, boron phosphide, boron phosphide property, boron phosphide solubility, boron phosphide oxidation, boron phosphide chlorination, boron phosphide stability

ABSTRACT: A study of the behavior of boron phosphide in acids, oxidizing media, oxygen, nitrogen, and chlorine has shown that its reactivity at 102—288C is highly dependent upon the grain size: coarse-grained boron phosphide is much more chemically stable than fine-grained; at room temperature it does not react with acids at all. In boiling acids and liquid oxidizing media, coarse-grained boron phosphide dissolves at a much lower rate than fine-grained. The latter begins to oxidize in air at 550—560C, the former at 740—750C. At 800C, boron phosphide, regardless of grain size, trans-

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ACCESSION NR: AP4041840

S/0054/64/000/002/0132/0134

AUTHOR: Andreyeva, I. Yu.; Yefremov, G. V.

TITLE: Determination of boron-phosphide chemical composition

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1964, 132-134

TOPIC TAGS: boron phosphide, boron phosphide chemical composition, chemical composition determination, boron phosphide analysis, chemical analysis

ABSTRACT: The following method for the chemical analysis of boron phosphide has been suggested. The boron phosphide is chlorinated at 560C (fine grained) or 610C (coarse grained) and the boron and phosphorus chlorides obtained are absorbed in water. The remainder, consisting of BPO_4 , is converted into soluble form by fusing it with a mixture of Na_2CO_3 and NaNO_3 . The boron and phosphorus in the obtained solutions are then determined by conventional methods. The boron and phosphorus contents in coarse-grained boron phosphide determined by

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L 32671-66 EWT(m)/EWP(t)/ETI IJP(e) JD/JG/GD

ACC NR: AT6013572

(A)

SOURCE CODE: UR/0000/65/000/000/0429/0432

AUTHOR: Yefremov, G. V.; Andreyeva, I. Yu.

47
B+1

ORG: Leningrad State University im. A. A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: About some chemical properties and determination of composition of the boron phosphide

27

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Vysokotemperaturnyye neorganicheskiye soyedineniya (High temperature inorganic compounds). Kiev, Naukova dumka, 1965, 429-432

TOPIC TAGS: boron compound, solubility, phosphide, phosphorus, *CHEMICAL STABILITY, OXIDATION, CHEMICAL DECOMPOSITION*

ABSTRACT: Solubility in HNO_3 , H_2SO_4 , HCl , B_2 saturated KBr , NaOH , $\text{H}_2\text{C}_2\text{O}_4$, $\text{H}_4\text{C}_4\text{H}_4\text{O}_6$, $\text{H}_3\text{C}_6\text{H}_5\text{O}_7$, H_2O_2 , and mixtures thereof in various concentrations was studied for fine and coarse boron phosphide crystals. Oxidation and decomposition in both nitrogen and chlorine streams was investigated at $500^\circ\text{--}800^\circ\text{C}$. It was found that the chemical stability of boron phosphide depends upon crystal size. Accordingly, coarse boron phosphide crystals were found to be insoluble in either of the individual solvents or mixtures thereof while fine crystals were, generally, partially soluble in those solvents. In air or oxygen stream, boron phosphide oxidized to BPO_4 . The oxidation occurred at 550°--

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ACC NR: AT6013572

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-560°C for fine crystals and at 740°-750°C for coarse crystals and in both cases oxidation was rapid at 800°C. In the nitrogen stream, the decomposition into boron and phosphorus occurred at 800°-810°C for fine crystals and at 800°-890°C for coarse crystals. Fine and coarse crystals of boron phosphide reacted with chlorine at 550°-560°C and 600°-610°C, respectively. The composition of boron phosphide is shown in a table. Orig. art. has: 2 tables.

SUB CODE: 07 / SUBM DATE: 03Jul65/ OTH REF: 002

Cord 2/2 BLC

L 41319-65 EWP(e)/LMT(m)/EWP(t)/EWP(b) IJP(e) JD
ACCESSION NR: AP5011048 UR/0075/65/020/004/0448/0451

AUTHOR: Andrayeva, I. Yu.; Klar, M. M. (Deceased)

TITLE: Spectroscopic determination of impurities in boron phosphide

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 4, 1965, 448-451

TOPIC TAGS: boron phosphide, compound semiconductor, spectroscopic analysis, impurity determination, nonvolatile impurity, volatile impurity

ABSTRACT: Two spectroscopic techniques have been developed for determining 25 elements in pure boron phosphide, which is a new promising semiconductor material. Both techniques have the purpose of increasing the sensitivity of determinations. Following a direct technique, this purpose was achieved for all impurities except zinc, cadmium, and mercury by adding a sodium chloride carrier to the sample. The impurities were determined directly by conventional emission spectroscopy using alternating current arc excitation and an ISP-22 spectrograph with photographic recording. Zinc, cadmium, and mercury were determined in the same way but without sodium chloride addition.

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ACCESSION NR: AP5011048

The evaluation of the impurity content was made by the method of approximate quantitative analysis developed by M. M. Kler. Sensitivity of determinations was in the 1×10^{-2} — $1 \times 10^{-4}\%$ range and the average relative error was 9—25%. The indirect technique was applied only to determination of the volatile impurities (Pb, Sn, Bi, In, Ga, Ge, Tl, and Sb). These impurities were concentrated by volatilization in the presence of sodium chloride and condensation on a carbon rod collector, which was subsequently used as one of the arc electrodes. Simultaneously, the main components of boron phosphide were converted to nonvolatile products by heating the sample in a small carbon beaker at 1600C. After condensation of the volatile impurities, a spectroscopic procedure was used similar to the direct method. The spectra of the condensed impurities were produced on an ISP-28 spectrograph. Sensitivity of determinations of the volatile impurities was in the 1×10^{-3} — 3×10^{-5} range, i.e., was increased by one order of magnitude in comparison with direct determination. Orig. art. has: 2 figures and 3 tables. [JK]

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L 41819-65
ACCESSION NR: AP5011048

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A.
Zhdanova (Leningrad State University)

SUBMITTED: 13Mar64

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 004

OTHER: 001

ATD PRESS: 3235

Card *ce* 3/3

ZINGER, N., kand.tekhn.nauk; ANDREYEVA, K., inzh.

Testing of low heat-potential, steam-jet refrigerating machine.
Khol. tekhn. 37 no. 6:12-15 M-D '60. (MIRA 13:12)

1. Vsesoyuznyy teplotekhnicheskii institut im. F.E.Dzerzhinskogo.
(Refrigeration and refrigerating machinery)

ANDREYEVA, K.K., MALYSHEVA, A.Ye., REPIN, G.N. (Moskva).

Prolonged action of cold during work in closed building.
Gig.truda i prof. zav. 2 no.5:25-30 S-O '58 (MIRA 11:11)

1. Institut gigiyeny truda i profzabolevaniya AMN SSSR.
(COLD—PHYSIOLOGICAL EFFECT)

ANDREYEVA, K.K.

Hygienic evaluation of a radiant heating system for working areas
in cold environments. Gig. i san. 26 no.2:28-33 F '61.

(MIRA 14:10)

1. Iz Instituta gigiyeny truda i professional'nykh zabolevaniy
AMN SSSR.

(RADIANT HEATING)

(COLD STORAGE---HYGIENIC ASPECTS)

OMSELEVICH, A.M., professor; ANDREYEVA, K.N.

Transsternal surgical approaches to the organs of anterior mediastinum; anatomical and surgical examination [with summary in English]. Khirurgiia 33 no.4:9-20 Ap '57. (MLRA 10:7)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G.Anan'yev) Ministerstva zdravookhraneniya SSSR.

(THORAX, surg.

trans-sternal approaches, review)

ANDREYEVA, K. S.

96-4-1/24

AUTHORS: Sokolov, Ye. Ya. (Dr. Tech.Sc.), Rubinshteyn, Ya. M. (Dr. Tech.Sc.), Zinger, M.J. (Cand.Tech.Sc.), Bunin, V.S. (Engineer) and Andreyeva, K. S. (Engineer).

TITLE: The Selection of a High Power Turbine for District Heating Plants (Vybor tipa teplofikatsionnoy turbiny dlya shoy moshchnosti).

PERIODICAL: Teploenergetika, 1958, No.4, pp 5-11 (USSR)

ABSTRACT: Heat-supply turbines produced for steam conditions of 90 atms and 500°C, comprise types BT-25, with controlled district-heating pass-out at a pressure of 1.2-2.5 atms, and BPT-50, with two regulated steam pass-outs at pressures of 1.2-2.5 and 13±3 atms. Their performance does not satisfy modern requirements for district-heating of large towns, either in respect of unit output or pass-out steam conditions. It is important to increase the efficiency of heat and electric power stations; the prime need in these systems is to increase the amount of electric power generated. District-heating turbines should be 50 and 100 MW, with initial steam conditions of 130 atms and 565°C, as now used for condensing sets. Many investigators have shown that electrical output can be raised by adopting multi-stage heating of system-water instead of using only the pressure of 1.2 atms. If

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The Selection of a High Power ^{/Turbine for} District Heating Plants. 96-A-1/24

possible, the lower limit of steam pressure in the pass-out should be 0.5 atms. The pressure of the lower pass-out may be constant under all conditions, except nearly pure condensing conditions, or may be increased to 0.8-0.9 atms as suggested by B. V. Rudomino. It would be also advisable to provide for utilisation in the winter period of the ventilating flow of steam to the condenser. This steam can be used to heat make-up water in open heat-supply systems or to heat returned water in closed systems. Possible types of turbine are discussed. The present practice of having comparatively high reduction factors in urban district-heating stations gives a very high heat-loading on pass-out turbines and a very high steady electrical load throughout almost the entire heating season. Therefore, later stages of system-water heating could be supplied with steam from unregulated tapplings. When the district-heating station is located out of town, the pressure level in the outermost unregulated tapping in the water system could be limited to about 4 atms. When the station is a considerable distance from the centre of the thermal load, a pressure of the order of 14-16 atms may be advisable in the last unregulated

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tapping on the run of water. The use of reheat in heat-supply stations gives less economy than it does in ordinary condensing stations. Nevertheless, reheat is advantageous in turbines with pass-outs at 0.5, 1.5 and 4 atms; it is inadvisable for turbines with pass-out pressures greater than 0.5- 2 - 6 - 16 atms. The manufacture of two types of 50 and 100 MW heat-supply turbines is recommended. One is a turbine with initial steam conditions of 130 atms, 565°C, with reheat only on the 100 MW size; the lower limit of pass-out pressure should be 0.5 atms, with unregulated district-heating pass-outs of 1.5 and 4 atms. This turbine is denoted $\Pi BT_{0.5-4}$. The second type of turbine has the same initial steam conditions without reheat and the same lower limit of pass-out pressure of 0.5 atms but with unregulated pass-outs for district heating at 2.0, 6.0 and 16.0 atms. This turbine will be denoted $\Pi BT_{0.5-16}$.

To evaluate these two types, calculations were made of steam flows from the pass-outs and of steam flows in the turbine sections; also of live steam consumption Card 3/7 for various ambient temperatures, temperature curves and

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systems of heat supply, etc. In comparing different types of turbine it was assumed that they supplied a region of the same calculated thermal loading. Since the turbine is designed for conditions in which the flow of steam to the condenser is a minimum, the requisite turbine power will vary for different systems of heat supply and temperature gradients, and in no case does it correspond to the standard output of turbo-generator. In comparing efficiencies of different types of turbine this is unavoidable and immaterial. The standard thermal loading of the district was taken as 400 M kcal/hr, of which half is provided for by pass-out steam; a boiler house provides for the remainder and for peak loads. The turbine designs were carried out for the thermal circuits shown in Figs. 1 and 2. For both turbines the feed water was assumed to be heated to a temperature of 232°C. The steam pressures in the low-pressure regenerative tapplings corresponded to those for district-heating schemes. The efficiencies of the turbines were calculated in a way very similar to that formalised by the firm of General Electric in 1952. For turbine type Π BT_{0.5} - 16, the

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only case considered was that of stations outside towns, which requires that the system water be heated to 180°C . For turbine $\Pi\text{BT}_{0.5-4}$ the case considered was that of a series circuit comprising the peak boiler-house, the district-heating heaters and a station alternatively in or out of town. Temperature and water-flow graphs for the closed systems are given in Figs. 3 and 4 for both types of turbine. To compare these variants in respect of fuel consumption, the electrical outputs were equated in all cases to 135 MW. The respective fuel consumptions, obtained with identical thermal and electrical loadings, are given in Table 1, which shows that the use of turbine $\Pi\text{BT}_{0.5-4}$ instead of turbine $\Pi\text{BT}_{0.5-16}$ gives a fuel economy of about 5%. For turbine $\Pi\text{BT}_{0.5-4}$ the fuel consumption is about 1% less when the system water temperature is 150°C than when it is 180°C . The comparison also shows that for the same thermal and electrical loads turbine $\Pi\text{BT}_{0.5-4}$ has 7% less fuel consumption than turbine $\text{B}\Pi\text{T-50-3}$. A technical and economic comparison is then made between the different types of heat-supply turbine. The pros and cons of using the two kinds of turbines in an out-of-town station are discussed at some

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The Selection of a High Power District Heating Plants. /Turbine for 96-4-1/24

length. The advisability of installing one or the other depends on the amortisation time of the additional cost of the more expensive turbine, and a formula is given to determine this time. The main calculations were made for a district with a maximum thermal loading of 400 M kcal/hr, and ambient air temperatures of -36, -30 and -22°C.

Table 2 gives annual fuel economy figures for various climatic regions and various heat-supply systems resulting from the installation of a turbine type $\Pi BT_{0.5-4}$ with the given thermal and electrical loads. The table shows that this turbine saves more fuel than turbine type $\Pi BT_{0.5-16}$. Calculations are also made for the open circuit system of heat-supply. The case of an out-of-town station and a peak boiler house in the town is considered. Calculations were made of the extra initial costs of the heating system with series connection of the power station and peak boiler house as compared with parallel connection. The results are given in Table 3. Graphs of the amortisation time of the initial costs against the radius of service of the thermal circuit are given in Fig.5 and

Card 6/7 relate to the climatic conditions of Moscow, with turbines

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$\Pi BT_{0.5-4}$ and $\Pi BT_{0.5-16}$. Similar figures were also found for other climatic conditions. As the ambient temperature gets lower and the number of hours of utilisation of the installed thermal capacity of the station increases, the amortisation time of the additional capital expenditure decreases slightly. Only two factors have a major influence on the choice of type of turbine; the initial outlay and the fuel consumption. The use of turbine type $\Pi BT_{0.5-4}$ instead of $\Pi BT_{0.5-16}$ gives about 5% overall fuel economy but greater capital cost. Assuming the climatic conditions of Moscow, and amortisation over five years, the field of application of turbine type $\Pi BT_{0.5-4}$ is indicated in Table 4 for several sizes of heating system. In most cases turbine $\Pi BT_{0.5-4}$ is more suitable and therefore recommended for development in outputs of 50 or 100 MW. There are 5 figures, 4 tables and 2 Russian references.

Card 7/7
ASSOCIATION: All-Union Thermo-Technical Institute. (Vsesoyuznyy Teploekhnicheskii Institut).

AVAILABLE: Library of Congress

ANDREYEVA, K. S.

USSR/Engineering - Heat, Equipment, Design Apr 52

"Theoretical and Experimental Investigation of Gas Jet Ejectors," Prof Ye. Ya. Sokolov, Dr Tech Sci, K.S. Andreyeva, Engr, Lab of Heating

"Iz v-s Teplotekh Inst" No 4, pp 14-17

Discusses method for calcg air ejectors with high expansion of working medium and low compression ratio of mixt, not over 1.1-1.2, and compares results of theoretical calcn with exptl characteristics, substantiating eq developed for characteristic of gas jet ejectors.

216T46

ANDREYEVA, K. S.

✓ 1881. STUDY OF THE STEAM-JET EJECTOR PUMP OF A CONDENSED UNIT.
Zinger, M.M. and Andreyeva, K.S. (Ekt. Stn. (For Stn., Moscow), Jan. 1954,
vol. 23, 11-16). The characteristics of ejector pumps for dry air or
steam/air mixtures are discussed. The experimental investigation has
produced equations of sufficiently practical accuracy to provide the data
necessary for designing ejector pumps with conical mixing chambers such as
those under consideration. B.S.A.

2

Fuel

ANDREYEVA, K. S.

AID P - 2550

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 2/13

Authors : Zinger, N. M., Kand. Tech. Sci., and Andreyeva, K. S., Eng.

Title : Tests with a three-effect flue-gas ejector

Periodical : Teploenergetika, 6, 9-15, Je 1955

Abstract : An analysis with equations of tests made with three-effect flue-gas ejectors manufactured at the Leningrad Metallurgical Plant is given. The installation itself and the conditions in which the tests were made i.e., dry air ejection, steam and air mixture ejection, are described in detail, with curves. Ten diagrams are attached. Seven Russian references, 1949-1954.

Institution: All-Union Heat Engineering Institute

Submitted : No date

Andreyeva, K. S.

AID P - 4086

Subject : USSR/Power Eng.

Card 1/1 Pub. 110-a - 11/14

Author : Andreyeva, K. S., Eng.

Title : ~~XXXXXXXXXXXXXXXXXXXX~~
Nomogram for computing the hydraulic resistance
of piping systems.

Periodical : Teploenergetika, 12, 50-51, D 1955

Abstract : The author deals with heat distributing networks and
draws a nomogram of the conduit walls resistance,
depending upon the length, diameter and resistivity.

Institution : None

Submitted : No date

ANDREYEVA, K.S.

ZINGER, N.M., kandidat tekhnicheskikh nauk; ANDREYEVA, K.S., inzhener.

Study of hydraulic conditions in a complex heating network
by means of an electronic model. Teploenergetika 3 no.11:
45-51 N '56. (MLRA 9:12)

1. Vsesoyuznyy tepoltekhnichestkiy institut.
(Pipelines—Electromechanical analogies)
(Heating from central stations)

ANDREYEVA, K-S.

1329. INCREASED DELIVERY OF A FEED PUMP BY USE OF WATER-JET EJECTOR.
 Andreeva, K.S., Elinger, N.M. and Sokolov, E. Ya. (Elektr. Sta. (Hydr. Sta., Moscow), Jan. 1956, vol. 27, 16-20). Experiments with the use of ejectors for increasing the delivery of turbine pumps at two high-pressure power plants are described. Discharge capacity of the pumps was 270 tons per hour at 156 atm, suction pressure (above the saturated-steam pressure at feedwater temperature) being 12 m water head, and parameters of water in front of turbine 29 atm and 400°C, waste steam pressure 1.2-2.5 atm and speed 5000 rev/min. Owing to the low position of the deaerators the excess pressure head at the nozzle was 8-9 m instead of 12 m, causing excessive cavitation and eventually collapse of the pump 30-60 tons per hour short of the rating. To increase the maximum delivery and the pressure at the nozzles, water-jet ejectors were installed which resulted in improving the delivery by 40-50 tons per hour. C.E.A.

~~ZINGER, N.M., kand.tekhn.nauk; ANDREYEVA, K.S.~~
ZINGER, N.M., kand.tekhn.nauk; ANDREYEVA, K.S., inzhener.

Testing vapor ejector refrigerating apparatus. From.energ. 12
no.10:9-12 0 '57. (MIRA 10:10)

1. Vsesoyuznyy teplotekhnicheskoy institut imeni F.E.Dzerzhinskogo.
(Refrigeration and refrigerating machinery)

ANDREYEV, N.S.; ANDREYEVA, K.S.

Seismic prospecting for bauxite deposits. Trudy VITR no.1:309-
322 '58. (MIRA 12:1)
(Prospecting--Geophysical methods) (Seismic waves)

AUTHORS:

S/096/60/000/012/006/008
E041/E421
Zinger, N.M., Candidate of Technical Sciences,
Andreyeva, K.S., Engineer and Vul'man, F.A., Engineer
The Design of Multiple-Ring Hydraulic Networks on the
"Ural" Electronic Computer

TITLE:

PERIODICAL: Teploenergetika, 1960, No.12, pp.44-52
TEXT: The All-Union Thermal Engineering Institute (BTI) has
developed a general purpose programme suitable for calculations on
any kind of hydraulic network. Similar uses of the "Ural"
computer have been published before (Ref.3). The basic equations
are Kirchhoff's for nodes

(1)

(2)

and meshes $\sum V = 0$
 $\sum s v^2 = 0$

where the latter takes account of the quadratic variation of pipe
loss with flow. An arbitrary distribution of water flow is
assumed which satisfied Eq.(1). The left-hand side of Eq.(2) will
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S/096/60/000/012/006/008
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The Design of Multiple-Ring Hydraulic Networks on the "Ural"
Electronic Computer

not then equal zero but will represent the non-viscous loss of pressure. This supplementary loss is redistributed and a further calculation made. The process is repeated until the value of the non-viscous loss does not change. Two common situations which give rise to distinctive sub-routines are shown in Fig.1a (an isolated ring) and Fig.1b (two adjacent rings). The method has been applied to a distinct heating system in Moscow consisting of 9 rings (Fig.2). The maximum allowable non-viscous pressure loss is 500 kg/m^2 . In Fig.2a results are shown for a manual calculation by a skilled computer over a period of 15 hours. The upper figure quoted against each pipe is the initial assumption, the lower figure is the result after seven successive approximations. In Fig.2b the respective figures apply to a machine calculation. Fig.3 is a diagram illustrating the steps in the successive approximation. There are ten such steps and these are described in the text. The corresponding programme schematic is in Fig.4 and refers, of course, specifically to the "Ural" machine. It is

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ZINGER, N.M., kand. tekhn. nauk; ANDREYEVA, K.S., inzh.

Study of the characteristics of power entrance to consumers
with series connection of hot water supply heaters. Elek
sta. 35 no.10:23-28 0'64. (MIRA 17:12)

TIMOFEYEV, A., kand. sel'skokhozyaystvennykh nauk; ANDREYEVA, L., agronom

Using mixtures of herbicides and mineral fertilizers in controlling weeds on millet fields. Nauka i pered. op v sel'khoz. 9 no.6:42 Jo
'59. (MIRA 12:9)

(Millet) (Weed control)

ANDREYEVA, L.

~~SECRET~~

Veteran communications workers. Sov.sviaz. 2 no.11:14-16.N '52.
(Telecommunication--Employees) (MLRA 7:8)

ZHINKIN, L.; ANDREYEVA, L.

Nuclear multiplication and DNA synthesis in the developmental process of somatic musculature. Dokl. AN SSSR 149 no. 1: 185-188
Mr '63. (MIRA 16:2)

1. Institut tsitologii AN SSSR. Predstavleno akademikom
Y.A. Orlovym.

(Cell nuclei)

(Nucleic acids)

(Muscle)

ANDREYEVA, I.A.

Preparation of formed marmalade jelly using agaroids with
medicinal substances. Apt. de'o 11 no.5:34-38 S-O '62.
(MIRA 17:5)

1. Zaporozhskiy farmatsevticheskiy institut.

ACCESSION NR: AT4045607

S/2563/64/000/239/0108/0120

AUTHOR: Batashev, K. P.; Andreyeva, L. A.; Afonina, L. G.

TITLE: Titanium-based insoluble anodes

SOURCE: Leningrad. Politekhnikheskiy Institut. Trudy*, no. 239, 1964. Elektro-metallurgiya tsvetnykh metallov (Electrometallurgy of nonferrous metals), 108-120

TOPIC TAGS: electrometallurgy, electric refining, insoluble anode, titanium based anode, electrode stability, anode polarization, platinizing

ABSTRACT: Although attempts to substitute titanium, niobium and tantalum for platinum as the material of insoluble electrodes have failed because of anodic polarization with the formation of nonconductive oxide films, recent studies of the authors showed that titanium can be used effectively as the base of platinum-coated electrodes proved that the platinum coating is porous and that there is adequate titanium - platinum electrical contact. As a result of thorough studies of electrovacuum, electrospray and electrolytic platinizing, the authors developed a process for producing quality platinum coatings in which titanium, pretreated with hot 65% H_2SO_4 to obtain firm coating adhesion, is platinized at 60-85°C and 0.5-1.0 a/dm in a solution of 8 g metallic Pt, 30-35 g $(NH_4)_2HPO_4 \cdot 12 H_2O$ and 225-250 g $Na_2HPO_4 \cdot 12 H_2O$ per

Card 1/2

ACCESSION NR: AT4045607

liter. Adequate electrode stability was indicated by a platinum loss of 1.70-4.38 g (retrievable) per ton of chlorine obtained in the protracted electrolysis of cobalt chloride, sodium chloride and hydrochloric acid. Rhodium-coated (a) and palladium-coated (b) titanium anodes were also prepared (a) by electrolysis of a solution containing 2 g/liter Rh and 25-30 g/liter H_2SO_4 at 55-60C with a yield of 50-70% of the theoretical, and (b) by electrolysis of a solution of $PdCl_2$ (30-40 g/liter Pd) in ammonia (3 g/liter NH_3) or a solution containing 2.5-10 g $PdCl_2$, 100 g $Na_2HPO_4 \cdot 12H_2O$, 20 g $(NH_4)_2 HPO_4 \cdot 12H_2O$, and 2.5 g of benzoic acid per liter. Testing of Batashev's titanium-graphite and titanium-carbon electrodes in the electrolysis of chloride solutions proved their superiority over pure graphite and carbon electrodes. Orig. art. has: 6 figures and 5 tables.

ASSOCIATION: Leningradskiy politekhnicheskii Institut imeni M. I. Kalinina
(Leningrad Polytechnical Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 016

OTHER: 005

Card 2/2

BATASHEV, K.P.; ANDREYEVA, L.A.; AFONINA, L.G.

Inert anodes on a titanium base. Trudy LPI no.239:108-120 '64.
(MIRA 17:10)

BATASHEV, K.P.; ANDREYEVA, L.A.; YUMAYEVA, R.Z.

Electrolysis of cobalt chloride with platinized titanium inert
anodes. Trudy LPI no.239:121-125 '64.

(MIRA 17:10)

ANDREYEVA, L. D.

"The algorithm for modelling of a language"

Report to be submitted for the 9th international Congress of Linguists,
Permanent International Committee of Linguistics, Cambridge Mass. 27-31 Aug 62

ANDREYEVA, L.E.; ZARINA, E.Ya.; CHEKHOL'SKAYA, E.K.

Using "kateksol" as a surface-active agent. Khim.volok.
no.5:67-68 '62. (MIRA 15:11)

1. Klinskiy kombinat iskusstvennogo i sinteticheskogo
volokna.

(Rayon)
(Surface-active agents)

5.3600

75701
SOV/80-32-10-50/51

AUTHORS: Pigulevskiy, G. V., Kostenko, V. G., Andreyeva, L. F.

TITLE: Brief Communications. Preparation of Discrete Linalyl Chloride

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10, pp 2367-2370 (USSR)

ABSTRACT: Linalool in reaction with PCl_3 gave a mixture of 40% linalyl chloride and 60% geranyl chloride. It is known that lithium aluminum hydride reacts with primary chlorides but does not reduce the tertiary chlorides. Lithium aluminum hydride reacts completely at room temperature with geranyl chloride, forming dihydromyrcene. Linalyl chloride is not reduced in this reaction, and the obtained mixture of linalyl chloride and dihydromyrcene was separated by distillation. Hydrogenation of linalyl chloride and dihydromyrcene shows the presence of two double bonds in the above compounds. This is proof that upon reduction of chloride with lithium aluminum hydride the double bonds do not reduce

Card 1/2

Brief Communications. Preparation of Discrete
Linalyl Chloride

75701
SOV/80-32-10-50/51

and that the chloride does not contain an admixture of cyclic chlorides. In comparison with geranyl chloride, linalyl chloride has lower specific gravity and smaller refractive index and is optically active. There are 2 figures; 1 table; 7 references, 4 Soviet, 1 U.S., 1 German, 1 British. The U. S. and British references are: I. Frevet, G. Kon, J. Chem. Soc., 3131 (1950); E. Johnson, R. Bleizzard, H. Carhart, J. Am. Chem. Soc., 70, 3664 (1948).

SUBMITTED: December 20, 1958

Card 2/2

5.1190

770H
30V/79-30-2-48/78

AUTHORS: Gavrilov, B. G., Andreyeva, L. F.

TITLE: Thermal Conversions of Isomeric Xylenes Over Clays

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp
593-596 (USSR)

ABSTRACT: This article deals with the study of thermo-catalytic conversions of isomeric xylenes over clays. The experiments were conducted over activated clay (gumbrin) at 300° C and 30 atm. The heating time was 10 hr. Amounts of the reaction products were determined by means of infrared absorption spectra in the 700-800 cm⁻¹ range. Toluene and mesitylene were determined by specific weight, boiling temperature, and refraction coefficient. Results of the conversions are: for o-xylene

Card 1/5

Thermal Conversions of Isomeric Xylenes
Over Clays

77897

SOV/79-30-2-48/78

Table 1.

Key to Table 1: (1) fraction; (2) hydrocarbon; (3) yield, (in %); (4) narrow fraction temperature (5) residue; (6) losses; (7) benzene; (8) toluene; (9) xylenes; (10) mesitylene.

(1)	(2)	(3)	(4)	d_4^{20}	n_D^{20}
79-80° . . .	(7)	0.25	79.4°		1.5002
107-110 . . .	(8)	16.5	108.4-109	0.8657	1.4959
130-150 . . .	(9)	57.8	135-145		
163-164 . . .	(10)	8.45	163.6-163.9	0.8663	1.5040
(5)		1.45	—	—	—
(6)	—	5.55	—	—	—

Card 2/5

Thermal Conversions of Isomeric Xylenes
Over Clays

77897
SOV/79-30-2-48/78

for m-xylene

Table 2.

Key to Table 2 (1) fraction; (2) hydrocarbon; (3) yield, (in %); (4) narrow fraction temperature; (5) residue; (6) losses; (7) benzene; (8) toluene; (9) xylenes; (10) mesitylene.

(1)	(2)	(3)	(4)	d_4^{20}	n_D^{20}
79-80°	(7)	0.2	79.2°	—	1.5000
107-110	(8)	12.9	108.5-109	0.8650	1.4955
130-150	(9)	71.2	135.5-145	—	—
163-165	(10)	9.90	164.5-165.0	0.8637	1.5037
(5)	—	0.2	—	—	—
(6)	—	5.6	—	—	—

Card 3/5

Thermal Conversions of Isomeric Xylenes
Over Clay

77897
SOV/79-30-2-48/78

for p-xylene

Table 3.

Key to Table 3: (1) fraction; (2) hydrocarbon; (3) yield, (in %); (4) narrow fraction temperature; (5) residue; (6) losses; (7) benzene; (8) toluene; (9) xylenes; (10) mesitylene; (11) durene.

(1)	(2)	(3)	(4)	α_D^{20}	n_D^{20}
79-80°	(7)	0.2	79.4°	—	1.5000
110-112	(8)	14.5	110.5-111	0.8652	1.4955
130-150	(9)	61.3	135 -144	—	—
162-164	(10)	13.0	163.5-163.8	0.8644	1.5040
188-191	(11)	3.1	189.5-190	—	—
(5)	—	0.3	—	—	—
(6)	—	7.6	—	—	—

Card 4/5

Thermal Conversions of Isomeric Xylenes
Over Clays

77897
SOV/79-30-2-48/78

Because of ease of the conversion and simplicity of product separation, this method can be used to obtain toluene, isomeric xylenes and polymethyl benzenes. The above conversions also apply to hydrocarbons with more complex radicals (up to amyl), since the reaction occurs because of splitting-off and migration of a paraffin radical. There are 3 tables; 3 figures; and 11 references, 8 Soviet, 2 U.S., 1 U.K. The 3 U.S. and U.K. references are: L. R. Herndon, E. E. Reid, J. Am. Chem. Soc., 50, 3066 (1928); C. C. Cannon, G. B. B. M. Sutherland, Spectroch. Acta, 4, 373 (1951); C. W. Young, R. B. Du Vall, N. Wright, Analyt. Chem., 23, 5 (1951).

ASSOCIATION: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

SUBMITTED: February 26, 1959

Card 5/5

ZHINKIN, L.N.; ZAVARZIN, A.A.; LEBEDEVA, G.S.; ANDREYEVA, L.F.

Use of liquid emulsions in autoradiography with thymidine- H^3 and adenine- C^{14} . TSitologiya 3 no.4:478-481 J1-Ag '61. (MIRA 14:8)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR, Leningrad.

(AUTORADIOGRAPHY)

ZHINKIN, L. N. and ANDREYEVA, L. F.

"DNA Synthesis and Nuclear Division in the Course of Development of the Striated Musculature." pp. 31

Institute of Cytology AS USSR Laboratory of Cell Morphology

II Nauchnaya Konferentsiya Instituta Tsitologii AN SSSR. Tезисы Докладов
(Second Scientific Conference of the Institute of Cytology of the Academy of Sciences USSR, Abstracts of Reports), Leningrad, 1962 88 pp.

JPRS 20,634

ZHINKIN. L.N.; ANDREYEVA, L.F.

DNA synthesis and nuclear multiplication in the course of the
development of striated muscle tissue. Sbor. rab. Inst. tsit.
no.5:12-22 '63. (MIRA 17:2)

1. Laboratoriya morfologii kletki Instituta tsitorlogii AN SSSR.

ANDREYEVA, L.F.; DONDUA, A.K.; ZAVARZIN, A.A.

Study of RNA synthesis during cell differentiation by the
methods of fractional extraction and autoradiography.
Sbor. rab. Inst. tsit. no.5:102-120 '63. (MIRA 17:2)

1. Laboratoriya morfologii kletki Instituta tsitologii i
Laboratoriya embriologii Biologicheskogo nauchno-issledovatel'.
skogo instituta Leningradskogo gosudarstvennogo universiteta.

ANDREY L., I.M.; BISHOP, L.F.

Effect of the components on the mutual extinction of dispersed
dyes in the dyeing of acetate silk with binary mixtures. Izv.
vys. shk. fiz. i tekhn. tekhn. prem. no. 2:1979-1980. 14.

(MIRA 10:10)

1. Vsesoyuznyy nauchnyy institut tekhnicheskoy i tekhn. promyshlennosti.

SIMAKOVA, T.L.; KOLESNIK, Z.A.; STRIGALEVA, N.V.; VORONOVA, I.K.;
SHMONOVA, N.I.; GERASYUTO, Z.S.; ANDREYEVA, L.G.

Bacteriological change of petroleums and their components
under anaerobic conditions. Trudy Inst.mikrobiol. no.9:81-85
'61. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
institut, Leningrad.
(Petroleum--Microbiology)

BOGOMOLOV, A.I.; PANINA, K.I.; ANDREYEVA, L.G.

Characteristics of the chemical composition of petroleum
in the southern Mangyshlak Peninsula. Trudy VNIGRI no.218:
54-61 '63. (MIRA 17:3)

OZERETSKOVSKAYA, N.N.: BUCHNEVA, N.V.: ANDREYEVA, L.G.

Experience in treating tertian malaria with a prolonged incubation period with new Soviet preparations in Altai Territory. Sovet.med. 19 no.5:36-43 My '55. (MLRA 8:8)

1. Iz klinicheskogo sektora (zav.-prof. N.N.Plitnikov) Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdavookhraneniia SSSR (dir.-deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR prof. P.G. Sergiyev)

(ANTIMALARIALS
new, in Russia)

ZHUKOVA, T.A.; PROKOPENKO, L.I.; PASTERNAK, Ye.A.; ANDREYEVA, L.G.

Seeking methods for radical chemical prevention and cure without recurrence of tertian malaria with short and long incubation periods. Report no.5: Radical quinocid therapy without recurrence of tertian malaria with long incubation period. Med. paraz. i paraz. bol. 24 no.2:141-147 Ap-Je '55. (MLRA 8:10)

1. Iz otdeleniya epidemiologii malyarii i organizatsii bor'by s malyariy i drugimi parazitarnymi boleznyami Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdra-vookhraneniya SSSR (dir. instituta-prof. P.G. Sergiyev, zav. otdeleniyem - dotsent M.G. Rashina) i parazitologicheskikh otdelov Kamenskoy i Pavlovskoy sanitarno-epidemiologicheskikh stantsii Altayskogo kraya.

(MALARIA, therapy,

aminoquinoline deriv.)

(QUINOLINE, therapeutic use,

aminoquinoline deriv. in malaria)

ANDREYEVA, L.G., aspirant

Separating a papaverin hydrochloride and dibazole hydrochloride
mixture by chromatography. Apt. delo 7 no. 4:14-17 J1-Ag '58
(MIRA 11:8)

1. Iz laboratorii fizicheskoy khimii (nauchnyy rukovoditel'
N.A. Figurovskiy) Tsentral'nogo nauchno-issledovatel'skogo aptechnogo
instituta.

(CHROMATOGRAPHIC ANALYSIS)

(PAPAVERIN)

(BENZIMIDAZOLE)

ZHUKOVA, T.A.; ZHILINSKAYA, I.N.; TAGIYEV, T.B.; ANDREYEVA, L.G.; CHIZH, I.V.

The results of quinocide therapy for tertian malaria having a short incubation period with quinocide in Azerbaijan. Med.paraz. i paraz. bol. 27 no.1:73-78 Ja-F '58. (MIRA 11:4)

1. Iz otdeleniya epidemiologii malyarii i organizatsii bor'by s malyariyey i drugimi parazitarnymi boleznyami Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdравo-okhraneniya SSSR (dir. instituta - prof. P.G.Sergiyev, zav. otdeleniyem M.G.Rashina) i parazitologicheskogo otdela Astarinskoy sanitarno-epidemiologicheskoy stantsii Azerbaydzhanskoy SSR (zav. stantsiei G.Mamedov)

(ANTIMALARIALS, therapeutic use
quinocide in tertian malaria (Rus))

ANDREYEVA, L.G., Cand Pharm Sci -- (diss) "The use of the chromatographic method of analysis for ^{isolation} ~~separation~~ of medicinal alkaloid mixtures and other organic bases." Mos, 1959. 17 pp (First Mos Order of Lenin Med Inst im I.M. Sechenov). 200 copies (HL,37-59, 112)

82

ANDREYEVA, L.G., aspirant

Study on the possibility of separating mixtures of certain alkaloids by adsorption chromatography [with summary in English]. Apt. delo 8 no.1:17-19 Ja-F '59. (NIRA 12:2)

1. Iz otdela fiziko-khimicheskogo analiza Tsentral'nogo aptechnogo nauchno-issledovatel'skogo instituta (nauchnyy rukovoditel' - prof. N.A. Figurovskiy) Ministerstva zdravookhraneniya SSSR.
(ALKALOIDS) (SILICIC ACIDS)

ANDREYEVA, L.G., aspirant

Separation of alkaloid mixtures by means of chromatographic
adsorption on silicic acid. Report No.2. Apt.delo 9 no.1'
51-55 Ja-F '60. (MIRA 13:6)

1. Iz otdela fiziko-khimicheskogo analiza (nauchnyy rukovoditel'
prof. N.A. Figurovskiy).
(ALKALOIDS) (CHROMATOGRAPHIC ANALYSIS)

ANDREYEVA, L.G.; FIGUROVSKIY, N.A.

Collection of works of the Department of Analytical and Inorganic
Chemistry in the Pharmaceutical Division of the First Moscow
Medical Institute. Volume 2. Reviewed by L.G. Andreeva, N.A.
Figurovskii. Apt. delo 9 no. 5:85-88 S-O '60. (MIRA 13:10)
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

ANDREYEVA, L.G.

Use of the chromatographic method of analysis for separating drug mixtures of alkaloids and other organic bases. Apt. delo 9 no. 5:89 S-0 '60. (MIRA 13:10)

(CHROMATOGRAPHIC ANALYSIS) (ALKALOIDS)

ANDREYEVA, L.G.

Localization and quantitative content of carotinoids of highly
productive forms of Calendula officinalis. Apt. delo 10 no.3:
46-49 My-Je '61. (MIRA 14:7)
(COMPOSITAE) (CAROTENOIDS)

ANDREYEVA, L.G.; FIGUROVSKIY, N.A.

Separation of mixtures of organic bases by the chromatographic
adsorption method. Zhur.anal.khim. 17 no.1:105-108 Ja-F '62.
(MIRA 15:2)

1. Central Pharmaceutical Scientific Research Institute, Moscow.
(Salts) (Chromatographic analysis)

BELEN'KIY, L.I., doktor tekhn. nauk, prof.; ANDREYEVA, L.G., aspirant

Determining the concentration of dispersion dyes in binary mixtures. Tekst. prom. 24 no.2:66-71 F '64.

(MIRA 17:3)

1. Vsesoyuznyy zaochnyy institut tekstil'noy i legkoy promyshlennosti (VZITLP).

ANDREYEVA, L.G., kand. farm. nauk

Mathematical analysis of the dependence of alkaloid adsorption
on the pH in the medium of silicic acid. Report No.1. Sbor.
nauch. trud. TSANII 6:119-123 '64. (MIRA 19:1)

1. Nauchno-organizatsionnyy otdel TSentral'nogo aptechnogo
nauchno-issledovatel'skogo instituta.

физико-химия

USSR/Physical Chemistry - Crystals

B-5

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3590
 Author : Zhdanov V.A., Konusov V.F., Andreyeva L.G.
 Inst : Siberian Physico-Technological Institute at Tomsk University
 Title : Contribution to the Theory of Stability and Mechanical Characteristics of Ionic Lattices of CsCl Type.
 Orig Pub : Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, 1955, No 34, 219-230

Abstract : Considered are the stability conditions and mechanical characteristics of ionic lattices of CsCl type during different types of deformation. Thermal motion is not taken into account. For calculations the effective energy of interaction of ions is approximated by means of formula: $\varphi_{kk'} = (e_k e_{k'} / r_{kk'}) + (b_{kk'} / r_{kk'}^n)$ where e_k and $e_{k'}$ are charges of ions (k and $k' = 1$ and 2) $b_{kk'}$ and n are parameters. Region of stability of lattices of CsCl type (I)

Card 1/2

- 29 -

ANDREYEVA, L. I.
ANDREYEVA, L. I.

X"Electron Optics of Certain Special Electron Multipliers and its Characteristics".

A conference on Electron and Photo-electron Multipliers; Radiotekhnika i Elektronika, 1957, Vol. II, No. 12, pp. 1552 - 1557 (USSR)

Abst: A conference took place in Moscow during February 28 and March 6, 1957 and was attended by scientists and engineers from Moscow, Leningrad, Kiev and other centres of the Soviet Union. Altogether, 28 papers were read and discussed.

ANDREYEVA, L. E.

PHASE I BOOK EXPLOITATION SOV/3556

Moscow. Inzhenerno-fizicheskii institut

Nekotoryye voprosy eksperimental'noy fiziki; [sbornik] vyp. 2
(Some Problems in Experimental Physics; Collection of Articles.
Nr. 2) Moscow, Atomizdat, 1959. 123 p. 3,200 copies printed.

Sponsoring Agency: RSFSR. Ministerstvo vysshego i srednego
spetsial'nogo obrazovaniya.

Ed.: B.M. Stepanov, Doctor of Physical and Mathematical Sciences,
Professor; Tech. Ed.: S.M. Popova.

PURPOSE: This collection of articles is intended for graduate
engineers and physicists engaged in the design of physics
(laboratory) apparatus, and automatic and telemechanic equipment.

COVERAGE: This collection of articles on experimental physics was
written by members of the Moscow Physics and Engineering Insti-
tute. Each article is accompanied by drawings and references.

Card 1/5

Some Problems (Cont.)

SOV/3556

was used to register period signs

Dolgoshein, B.A., B.I. Luchkov, and V.I. Ushakov. Operation of Gas-Discharge Counters During Over-Loading Pulses 32

The authors deal with the results of a study of the operation of the MS-9, GS-9, and GS-30 standard counters under controlled pulse feed operating conditions. The dependence of "ionization memory" on pulse feed conditions was studied and a simple method of measuring discharge propagation speed along the counter electrode is described.

Vlasov, A D. Lenses Compensating the Effect of Intersection Gaps in a Linear Proton Accelerator 40

The problem of compensating the unfavorable effect of intersection gaps on radial oscillations of particles in a linear proton accelerator is discussed.

Irodov, I.Ye. Calculating the Profiles of Magnetic Poles 50

The article describes a method of computing profiles of the poles of magnetic analyzers of charged particles for a given field distribution in the plane of symmetry (the fringe effect

Card 3/5

Some Problems (Cont.)

SOV/3556

is not taken into account).

- Malov, A.F. Some Ionic Optical Properties of Static Axially Symmetrical Magnetic and Electric Fields 54
The author reports on the nonlinear study of the ionic optical properties of crossed, axially symmetrical, sectoral type electric and magnetic fields with unequal arm focusing and edges of arbitrary form.
- Vorob'yeva, M.A. Sensitivity of the Glowing Dot Method 69
- Kirillov-Ugryumov, V.G., B.A. Dolgoshein, A.M. Moskvichev, V.P. Morozova. Scattering of μ -Mesons with a Pulse of About 100 mev. c-1 in Copper and Iron 80
- Dologshein, B.A. and B.I. Luchkov. Polarization of Flow of μ^+ -mesons at Sea Level 92
- Petrovichev, V.I. Heat Transfer During Turbulent Mercury Flow in Narrow Circular Channels 96
The author describes experimental results on heat transfer of mercury in narrow circular channels for 2 ratios of outside and
Card 4/5

SOV/109-4-7-22/25

AUTHORS: Andreyeva, L.I. and Stepanov, B.M.

TITLE: ~~Multi-channel~~ Electron Multipliers

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 7,
pp 1210 - 1212 (USSR)

ABSTRACT: The multi-channel electron multipliers described in the paper have an output current of up to 7 A, a time resolution of $2,5 \times 10^{-9}$ sec and an amplification coefficient of $10^8 - 10^9$. Figure 4 shows a four-channel electron-optical system, in which channels are connected in parallel to a single coaxial collector. Each channel contains 10 stages of multiplication and is provided with trough-like emitters. The collector is in the form of a short section of a $75-\Omega$ coaxial line having slots on the external sheath. The electron optics of the input to the coaxial collector is shown in Figure 2. This construction provides a good screening of the collector field from the field of the output emitters and permits the elimination of the voltage changes on the collector

Card1/2

Multi-channel Electron Multipliers

SOV/109-4-7-22/25

during the appearance of the current pulse. Figure 3 shows a two-channel electron multiplier where the collector is in the form of a capacitor operating in conjunction with a coaxial line. In this case, the construction of the collector ensures a good screening of the collector field from the fields of the output emitters. The electron optics of the near-cathode region of a two-channel system is shown in Figure 5. There are 5 figures and 5 English references.

SUBMITTED: January 25, 1958

Card 2/2

9.4/30

39165

S/120/62/000/003/033/048
E032/E114

AUTHORS: Andreyeva, L.I., and Stepanov, B.M.

TITLE: A two-channel electron multiplier

PERIODICAL: Priory i tekhnika eksperimenta, no.3, 1962, 138-141

TEXT: A description is given of the ЭЛУ-09 (ELU-09) multiplier which is designed for the recording of pulsed X-ray radiation in the range 0.1 to 3 MeV. The time resolution is 1.5×10^{-9} , the output current amplitude in the linear region is up to 15 A, and the amplification is $10^8 - 10^9$. The maximum output current is 30 A. Fig.2 shows the electron-optical system. The metal cathode has a yield of 0.0015 electron/photon. The working area of the cathode is 30 cm. The multiplier incorporates the anti-noise screen \ni and is maintained at a positive potential relative to the cathode, thereby reducing the noise to less than $10^{-7} - 10^{-8}$ A. The sensitivity is $10 \times 10^{-14} - 100 \times 10^{-14}$ A/photon/sec.cm². ✓

There are 6 figures.

SUBMITTED: November 5, 1961

Card 1/2 /

ANDREYEV, L.I.
SILAEV, A.B. [Silayev, A.B.]; FEDOSEEVA, N.V. [Fedoseyeva, N.V.]; KATRUKHA, G.S.;
ANDREEVA, L.I. [Andreyeva, L.I.]; KOZLOV, L.V.

Preparation and properties of some L- α , γ -diaminobutyric acid
peptides. Coll Cz Chem 27 no.9:2240 S '62.

1. Moscow State University, U.S.S.R. (for Silaev and Fedoseeva).

FEDOSEYEVA, N.V.; SILAYEV, A.B.; ANDREYEVA, L.I.

Chemistry of polymyxin M. Part 6: Synthesis of peptides
of L- α -diaminobutyric acid. Zhur.ob.khim. 33 no.3:1019-1023
Mr '63. (MIRA 16:3)
(Polymyxins) (Butyric acid) (Peptides)

L 4406-66

ACCESSION NR: AP5024170

UR/0115/65/000/008/0038/0043
621.383(047.1):535.35.087

AUTHOR: Andreyeva, L. I.; Stepanov, B. M.

TITLE: Photocells for measuring powerful light pulses *gm*

SOURCE: Izmeritel'naya tekhnika, no. 8, 1965, 38-43

TOPIC TAGS: photocathode, photoelectric cell, light pulse, photodiode, nanosecond pulse

ABSTRACT: The study and development of devices generating single light pulses of nanosecond duration necessitate a visual analysis of the shape and structure of these pulses and of the effect of various parameters on them. Devices used for recording such pulses must have wide-band characteristics and be very sensitive. The present article reviews the existing photocells which meet these requirements and are capable of linear conversion of the powerful light pulses into electric pulses; namely, vacuum photocells with an extrinsic photoeffect having antimony-caesium, silver-oxygen-caesium, or multialkali photocathodes deposited on highly conductive metal substrates for producing high photocurrent densities. The sensitivity and time resolution of the photocells are discussed,

Card 1/2

L 4406-66

ACCESSION NR: AF5024170

and a description of the coaxial photocell and photocells with an end-type photocathode and a wide-band coaxial output is given. Orig. art. has: 6 figures, 2 tables, and 22 formulas. [08]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, OP

NO REF SOV: 017

OTHER: 012

ATD PRESS: 4/25

Card 2/2

L 10717-65 EWI(m)/EWP(h) IJP(c) JD

ACCESSION NR: AP4045410

S/0136/64/000/008/0074/0076

AUTHOR: Petrov, G. I., Andreyev, V. M., Andreyeva, L. I.

TITLE: Effect of the physical properties of germanium dioxide on its reduction B

SOURCE: Tsvetny*ye metally*, no. 9, 1964, 74-76 21-27

TOPIC TAGS: germanium dioxide, germanium dioxide physical property, germanium dioxide reduction, germanium tetrachloride hydrolysis, calcination

ABSTRACT: The paper considers some of the physical properties of GeO_2 prepared by hydrolysis of germanium tetrachloride in deionized water, and their effect on the reduction rate with hydrogen. The physical structure of the dioxide was found to be affected by the method of hydrolysis. Simultaneous loading of the tetrachloride and water results in a fine structure with a highly developed surface, while continuous loading of both leads to coarse, dense dioxide grains. The reduction rate was determined from the pressure drop in the system due to freezing out of water vapor produced by the chemical reaction. The reduction rate was found to increase sharply with decreasing specific gravity of the sample. After filtration under similar conditions, the light-weight germanium dioxide contained 25-30%

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L 10717-65

ACCESSION NR: AP4045410

moisture, while the "heavy" dioxide contained only 6-10%. This also affects the reduction. The usual calcination of germanium dioxide in air may also change its physical properties. Thus, an increase in the calcination temperature leads to an increase in hygroscopicity up to 400-500C, the quantity of hygroscopic moisture removed from light-weight GeO_2 being 3.6 times as high as from "heavy" germanium dioxide. The amount of water of crystallization removed is exactly the same for both light and heavy germanium dioxide. At higher temperatures, the hygroscopicity decreases, probably due to decreased porosity. Many publications (I. A. Sokolov, T. L. Joseph and others) have noted the relationship between the reduction rate of oxides and their porosity, meaning the porosity after preliminary calcination. The article concludes that the decrease in rate of reduction of GeO_2 after calcination at high temperatures is caused not only by the decrease in porosity, but also by the formation of a new β - GeO_2 modification which is reduced with difficulty. In tests at high temperatures, the partially reduced germanium powder always contains β - GeO_2 . Orig. art. has: 5 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 002

Card 2/2

ANDREYEVA, L.I.; BELIKOV, I.F.; KUZINA, P.V.; SAMSONOVA, A.V.; YAKOVLEVA,
V.P.

Chemical composition of some grass species of the southern Maritime
Territory. Seob. DVFAN SSSR no.18:73-76 '63. (MIRA 17:11)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya AN
SSSR i Dal'nevostochnyy gosudarstvennyy universitet.

ANDREYENKO, I.I.; KALININ, V.I.

Heat of formation of H₂SO₄ oxyselenite. *Dokl. Akad. Nauk SSSR*, 39
no. 10:2410-2412, 1965. (NIRA 15:12)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni
Mendeleeva. Submitted June 16, 1964.

L 51071-65 EWG(j)/EWT(m)/EPF(c)/EWP(j)/T/EWA(h)/EWA(c)/EWA(l) Pc-4/Pr-4/
Feb RM

ACCESSION NR: AP5011187

UR/0366/65/001/004/0636/0640

AUTHORS: Sokovishina, I. F.; Perekalin, V. V.; Lerner, O. M.; Andreyeva, L. M.

TITLE: Synthesis and isomerization of nitro-alpha-oxides

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 4, 1965, 636-640

TOPIC TAGS: organic synthesis, isomeric transition, oxide, nitro compound

ABSTRACT: Because of the antibacterial activity of some nitro compounds and the fungicidal properties of some alpha oxides, the authors attempted to combine the two. Nitro-replaced alpha oxides were first obtained by an exchange reaction of iodine-replaced oxides with silver nitrite. The structure was determined by IR spectra: the 862 and 1260 cm^{-1} bands characteristic of alpha oxide rings and the 1362 and 1560 cm^{-1} bands of the nitro group were all detected. Chemical analysis also confirmed the composition of the compound. The oxide of 1-nitropropen-2 was converted, on heating with water, to 1-nitropropylene glycol-2,3, and this was then converted to a benzil derivative. When the nitro oxide was acted on by hydrogen chloride, 1-chloro-3-nitropropanol-2 was obtained, and this was hydrolyzed to 3-chloropropanol-2 acid, from which an acyl derivative was obtained. It was found that the oxide of 1-nitropropen-2 when acted on by a base, by ultraviolet light or

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ACCESSION NR: AP5011187

gamma radiation, or when heated undergoes extraordinary isomerization to the more stable conjugated nitroalkenol-1-nitropropen-1-ol-3. Orig. art. has: 4 formulas.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 06Mar63

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: C05

OTHER: 002

me
Card 2/2

Country : USSR
Category : Diseases of Farm Animals. R
 Diseases Caused by Bacteria and Fungi.
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96982
Author : Andreyeva, L. N.
Institut. : Omsk Institute of Veterinary Sciences.
Title : An Experiment Applying Novarsenol Intramuscu-
 larly in Paratyphoid of Calves.
Orig Pub. : Sb. stud. nauchn. robot. Omskiy vet. in-t,
 1957, vyp. 2, 46-47
Abstract : Novarsenol was intramuscularly introduced in
 the form of a 1.5 percent water solution in do-
 sages of 10-20 ml and simultaneously glucose
 and caffeine were administered. Out of 12 trea-
 ted calves 11 recovered. Novarsenol did not
 produce any side effects.

Cs 1: 1/1

ANDREYEVA, L.N.; ARNAUTOV, N.V.

Quantitative spectral determination of minor elements in sedimentary
rocks. [Trudy] Inst. geol. i geofiz. Sib. otd. AN SSSR no.32:29-33
'65. (MIRA 18:9)

LIKUMOVICH, A.G.; ZAKHAROVA, N.V.; LAPKIN, L.M.; ANDREYEVA, L.N.;
RAZUMOVSKAYA, L.V.; IVAROVA, Ye.D.; VOLOSHKO, S.G.

Chromatographic analysis at the Sterlitamak Plant of Synthetic
Rubber. Zav.lab. 28 no.5:637 '62. (MIRA 15:6)

1. Sterlitamakskiy zavod sinteticheskogo kauchuka.
(Sterlitamak--Rubber, Synthetic) (Chromatographic analysis)

SVETKIN, Yu.V.; ANDREYEVA, L.N.

Reaction of ketene with nitrogen-containing bases. Part 20:
Polarography of chloroacetamides. Zhur. ob. khim. 35 no.5:
839-842 My '65. (MIRA 18:6)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.

TSVETKOV, V.N.; ANDREYEVA, L.N.; KVITCHENKO, L.N.

Flow birefringence and flexibility of deoxyribonucleic acid
molecules. Vysokom. soed. 7 no.11:2001-2005 N '65.

(MIRA 19:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR. Submitted
March 10, 1965.

VOLYAK, L.D.; ANDREYEVA, L.P. (Moskva)

Study of the surface tension of n-heptane and n-octane. Zhur.
fiz. khim. 35 no.7:1416-1417 J1 '61. (MIRA 14:7)
(Heptane) (Octane) (Surface tension)

L 54040-65

ACCESSION NR: AP5010333

UR/0205/65/005/002/0183/0185

AUTHOR: Dubrovina, Z. V.; Malkin, P. M.; Andreyeva, L. P. 12
B

TITLE: Effects of calcium, magnesium, phosphorus and fat on strontium-90 assimilation in rats

SOURCE: Radiobiologiya, v. 5, no. 2, 1965, 183-185

TOPIC TAGS: animal, rat, strontium-90, deposit formation, calcium metabolism, calcium radioprotective effect, food requirement, enriched food, calcium, magnesium, phosphorus, fat

ABSTRACT: In an experiment on 6 groups of white rats weighing 130±3 g the possibility of increasing the radioprotective effect of calcium against strontium-90 by enriching standard rations with calcium, magnesium, phosphorus, and fat was investigated. Prior to experimentation all animals received standard rations containing a normal amount of calcium (0.4%) corresponding to 40-50 mg/day. During the 22 days of experimentation the first 5 groups received the same rations, but the milk was replaced by milk containing strontium-90 ($4-5 \cdot 10^{-8}$ curies/l). The first group served as a control. The

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ACCESSION NR: AP5010333

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rations of the second, third, and fourth groups were enriched with calcium, phosphorus, magnesium, and fat in different proportions. The fifth group received in addition to standard rations only ammonia oxylate which inhibits calcium intake. The sixth group received soy bean milk rations containing approximately the same amounts of calcium, phosphorus, magnesium, and fat as the control standard ration. Daily calcium intake and amount of calcium excreted in feces and urine were determined. On the 22nd day all animals were killed. Calcium and strontium-90 distribution and activity in bones and carcass were measured by radiochemical analysis and STS-6 counters. Findings show that in the second group with magnesium enriched rations strontium-90 activity was reduced twofold compared to the control. In the third group, the addition of phosphorus to the rations did not enhance the effect of the magnesium. In the fourth group strontium-90 deposition was reduced by four times with calcium, phosphorus, magnesium, and fat enriched rations. In the fifth group strontium-90 deposition was barely affected by the ammonia oxylate. In all groups, with the exception of the fifth, calcium assimilation was higher than in the control group and at the same time strontium-90 deposition was lower than in the control group.

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ACCESSION NR: AP5010333

The enriching substances appear to affect strontium-90 assimilation indirectly by intensifying or weakening the competitive role of calcium. The ratio between Ca:P:Mg:fat apparently is not a determining factor, because in the sixth group whose rations were practically the same as the control, strontium-90 deposition was almost 1.5 times less. Thus, study data indicate that the radioprotective effect of calcium against strontium-90 deposition may be increased by enriching rations with magnesium, phosphorus, and fat. Orig. art. has: 3 tables.

ASSOCIATION: None

SUBMITTED: 20Apr63

ENCL: 00

SUB CODE: LS

NR REF SOV: 002

OTHER: 011

Card 3/3 mb

L 0439-66 EWT(d)/EWT(1)/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/WV
ACC NR: AP6000292 SOURCE CODE: UR/0078/65/010/009/2192/2193

AUTHOR: Krentels, R.P.; Radovskiy, I.Z.; Gel'd, P.V.; Andreyeva, L.P.

ORG: none

TITLE: Phase transition of Mn_5Si_3

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 9, 1965, 2192-2193

TOPIC TAGS: electric conductivity, magnetic susceptibility, manganese compound, silicide, phase transition, temperature dependence, heat capacity

ABSTRACT: The magnetic susceptibility and electrical conductivity of Mn_5Si_3 were studied in the range of 20 — 300K. Measurements were taken on a pure, single-phase silicide sample annealed for 24 hr at 900C. The magnetic susceptibility was measured by the Faraday method in fields of 1000 Oe, and the electrical resistance by the standard compensation method. The results are shown in Fig. 1. The heat capacity values show distinct anomalies around 60K. The somewhat stretched temperature intervals of the anomalies of χ and ρ , which attain 20° degrees, are probably due to the fact that the measurements were taken under dynamic conditions. Above the transition point, the magnetic susceptibility of Mn_5Si_3 rapidly decreases with rising temperature; the Curie-Weiss law is followed closely in this region, and it follows that $\mu_{eff} = 3.9\mu_B$. The resistance grows fairly rapidly with temperature, indicating that the conduction is metallic in character. From the temperature dependence of the magnetic susceptibility it is concluded that the transition under consideration involves the breakdown of a weak ferromagnetic interaction and a change of the substance into the paramagnetic state.

Cord 1/2

UDC: 546.711'28

GEL'D, P.V.; ANDREYEVA, L.P.

Certain characteristics of the α -phase in the system Fe - Si.
Fiz. met. i metalloved. 19 no.1:70-77 Ja '65. (MIRA 18:4)

1. Ural'skiy politekhnicheskii institut imeni Kirova.

L 33183-66
ACC NR: AR6016150 SOURCE CODE: UR/0058/65/000/011/A025/A025

AUTHOR: Andreyeva, L. P.; Krentsis, R. P.

TITLE: Apparatus for measuring electric resistance and the linear-expansion factor

SOURCE: Ref. zh. Fizika, Abs. 11A261 42
B

REF SOURCE: Tr. Ural'skogo politekhn. in-ta, sb. 144, 1965, 126-128

TOPIC TAGS: measuring apparatus, electric resistance, thermal expansion

ABSTRACT: An apparatus simultaneously measuring electric resistance and the thermal linear-expansion factor in the temperature range 55—320K is described. [Translation of abstract.] [KP]

SUB CODE: 09, 14/ SUBM DATE: none

Card 1/1 MC

ANDREYEVA, L.P.

Use of spectrum analysis techniques at the Kuznetsk Metallurgical
Works. Izv.AN SSSR.Ser.fiz. 19 no.2:160-161 Mr-Ap '55. (MLBA 9:1)
(Tartu--Spectrum analysis--Congresses)